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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Maria Pettersson

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EXAMINER

CONLON, MARISA

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,881	Applicant(s) PETTERSSON ET AL.	
	Examiner MARISA CONLON	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/29/2006; 12/11/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a first office action on the merits. Claim 1, as originally filed, is currently pending and has been considered below.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. *IPXL Holdings v. Amazon.com, Inc.*, 430 F.2d 1377, 1384; 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); *Ex Parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). Because claims 13-16 each claim both an apparatus and the method for using that apparatus, they do not apprise a person of ordinary skill in the art of their scope, and thus they are invalid under 35 U.S.C. 112, second paragraph.

Claim 1 claims an apparatus, namely "an arrangement." However, the claim also recites method steps: "said imaging processing device is provided in an initial stage... and said image processing device is provided in a later stage." Therefore, claim 1 is rendered indefinite.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Montalescot et al. (U.S. 4,867,103) in view of Cöp et al. (WO 02/00011).

Montalescot et al. teach an arrangement for determining positions of the teats of a milking animal in a milking system comprising a robot arm (#20) for automatically attaching teat cups (#21) to the teats of a milking animal when being located in a position to be milked (Col. 5, lines 37-44), and a control device for controlling the movement of said robot arm based on determined positions of the teats of the milking animal (Col. 9, line 46, to Col. 10, line 4), said arrangement comprising: a first camera (#110) directed towards the teats of the milking animal when being located in the position to be milked (Col. 9, lines 2-5), wherein the first camera is provided to repeatedly record images (Col. 3, lines 40-57; Col. 6, lines 1-9; Col. 9, lines 6-37); an image processing device (#120) provided for repeatedly detecting the teats of the milking animal and determining their positions based on said repeatedly recorded images (Col. 9, lines 6-16; Col. 9, line 46, to Col. 10, line 4), wherein said image processing device is provided in an initial stage to determine the absolute position of a teat of the milking animal in a coordinate system of the milking system (Col. 9, lines 17-24; Col. 9, lines 46-51); and said image processing device is provided, in a later stage

Art Unit: 3643

when the robot arm is close to attach a teat cup to the teat of the milking animal, to repeatedly determine the position of the teat of the milking animal relative to the robot arm or the teat cup (Col. 6, lines 46-51; Col. 9, lines 57-63; Col. 10, lines 46-50; Col. 10, lines 63-67), wherein said the position of the teat of the milking animal relative to the robot arm or the teat cup is more exact than said absolute position (Col. 8, lines 30-33; see Abstract).

Montalescot et al. teach one camera, and thus do not explicitly teach a first camera pair. Also, Montalescot et al. do not explicitly teach an imaging processing device for determining the positions of the teats by a stereoscopic calculation method based on said repeatedly recorded pairs of images.

However, Cöp teaches a first camera pair (#9) directed towards the teats of the milking animal when being located in the position to be milked (see Figure 1); and Cöp teaches an imaging processing device for repeatedly detecting the teats of the milking animal and determining their positions by a stereoscopic calculation method based on said repeatedly recorded pairs of images (Pg. 1, line 25, to Pg. 2, line 4; see Pg. 3, line 34, to Pg. 5, line 12).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the arrangement of Montalescot et al., in view of the teachings of Cöp, in order to achieve accurate three-dimensional information, indicative of the location of the teat. Specifically, the stereoscopic image of the udder, as taught by Cöp, provides a rapid and reliable solution for

Art Unit: 3643

localizing the teat so as to enable arrangement of the teat cups with the robot arm (see Cöp at Pg. 2, lines 5-12).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Bull et al. (U.S. 5,666,903); O'Brien (U.S. 5,205,779); Nilsson (U.S. 6,431,116); Sjolund et al. (U.S. 2004/0182325); Nilsson (U.S. 2003/0145795).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARISA CONLON whose telephone number is (571)270-5739. The examiner can normally be reached on Monday-Friday 8:30-6:00, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571)272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3643

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. C./

Patent Examiner, Art Unit 3643

/Rob Swiatek/

Primary Examiner, Art Unit 3643

16 July 2009